

# **IMPLANTABLE HEART MONITORS HAVING FLAT CAPACITORS WITH CURVED PROFILES**

## **Abstract of the Disclosure**

5           Implantable heart-monitoring devices, such as defibrillators, pacemakers, and  
cardioverters, detect onset of abnormal heart rhythms and automatically apply  
corrective electrical therapy, specifically one or more bursts of electric charge, to  
abnormally beating hearts. Critical parts in these devices include the capacitors that  
store and deliver the bursts of electric charge. Some devices use flat aluminum  
10       electrolytic capacitors have cases with right-angle corners which leave gaps when  
placed against the rounded interior surfaces of typical device housings. These gaps  
and voids not only waste space, but ultimately force patients to endure implantable  
devices with larger housings than otherwise necessary. Accordingly, the inventors  
devised several capacitor structures that have curved profiles conforming to the  
15       rounded interior surfaces of device housings. Some exemplary capacitor  
embodiments include two or more staggered capacitor elements, and other  
embodiments stagger capacitors of different types and/or sizes.

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